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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,649	01/18/2002	Danny S. Barnes	005557.P008	5629

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EXAMINER

SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/052,649	Applicant(s) BARNES ET AL.	
	Examiner Gevell Selby	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/5/06 have been fully considered but they are not persuasive. The applicant submits the prior art does not disclose the following limitations of the claimed invention:

The same image buffer of frame grabber can capture images from both the internal camera and the external camera, as stated in claims 1, 5, 10, and 15. The Examiner respectfully disagrees.

2. Re claims 1, 5, 10, and 15) In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is well known to one of ordinary skill in the art to make a system more compact and efficient by combining two components into one. To make several parts in to a single unit would be merely a matter of engineering choice. In *Re Larson*, 144 USPQ 347 (CCPA 1665). The Bjorner reference does not teach against replacing two line buffers with a single buffer, but rather towards it. The Bjorner reference states, "These skilled in the art will appreciate that many different combinations of hardware will be suitable for practicing the present invention. Many commercially available substitutes, each having

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somewhat different cost and performance characteristics, exist for each of the physical components.

It is implied in the combination of Bjorner and Satoh, the memory controller will write any image data image data whether high or low resolution received from either camera into the same memory, since the two memories are combined into one. Therefore, Bjorner in view of Satoh discloses all the limitations of claims 1, 5, 10, and 15. The dependent claims are not allowable merely based on their dependency.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorner et al., in view of Satoh et al., US 2003/0193602.**

In regard to claims 1, 7, 10 and 15, Bjorner et al., US, 6,236,735, discloses an apparatus and process for operating the apparatus comprising:

a machine-vision system comprising an internal camera (see figure 4, element 22 and column 7, lines 20-35: The camera is internal to or part of the machine-vision system) operatively connected to an image buffer (see figure 4, element 68), and a digital signal processing unit (see figure 4, element 30 and

figures 5 and 7: The host computer's CPU performs the processing for the system); and

a camera port connected to a image buffer (see figure 4, element 54: It is inherent there is a video input port in order for the video signal (54) from the camera 16 to enter the computer), wherein the port is adapted to allow an external camera (16) to be connected to the machine vision system (see column 10, lines 25-33 and column 11, lines 7-12).

The Bjorner reference discloses two image buffers (low res. line buffer 56 and high res. line buffer 68) and does not disclose that the camera port is connected to the same image buffer the same image buffer can capture images from both the internal camera and the external camera.

Satoh et al., US 2003/0193602, discloses a camera system with a buffer memory or frame grabber (see figure 1, element 11) that can store both high resolution images and low resolution images (see para. 48).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Bjorner et al., in view of Satoh et al., US 2003/0193602, to have one image buffer or frame grabber connected to both cameras to store both high resolution and low resolution images, in order to allow the system to store image data quicker and require less components and synchronization, thus making the system is more efficient.

In regard to claims 2, 8 and 11, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claims 1, 7, and 10, respectively. The Bjorner

and Satoh references do not disclose that the cameras output a digital signal. The Official Notice taken in the previous office action stating that is well known in the art to configure a camera to have an A/D converter to convert the analog signal to digital is taken as prior art. Since the applicant has not timely traversed the old and well known statement, the above is now considered admitted prior art. See MPEP 2144.03 (c).

It would have been obvious to one of ordinary skill in the art to configure the system of the Bjorner reference to have the A/D converters in the cameras in order to send a digital signal to the processor.

In regard to claims 3, 9, 13 and 16, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus and process of claims 1, 7, 10 and 15, respectively. The Bjorner reference discloses further comprising a decoder (see figure 4, element 28) connected to the camera port and to the image buffer or frame grabber (see column 9, lines 45-57: The video processor or decoder is connected to the image buffer through the camera port of the video signal (54)).

In regard to claims 4 and 14, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claims 3 and 10, respectively. The Bjorner reference discloses further comprising an external camera, wherein the external camera outputs an analog signal (see column 9, lines 45-49).

In regard to claims 5 and 11, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claims 1 and 10, respectively. The Bjorner reference discloses wherein the internal camera comprises a lens and an image sensor

(see column 7, lines 20-24: It is inherent the CCD camera has a lens to focus the light on the image sensor).

In regard to claim 6, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claim 1. The Bjorner reference discloses further comprising a memory (see figure 4, element 58).

In regard to claim 17, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claim 15. It is implied by the Bjorner reference that since both camera have their own belt encoder signal and line clock (see figure 6, element 602 and 603 and figure 9, element 902 and 904) and the objects are continually being captured while passing the cameras on a convey belt (see column 6, lines 35-44 and column 12, lines 46-55), then the camera operate in parallel with the high resolution camera capturing the image of the object previously captured by the low resolution camera while the low resolution camera captures the next object on the conveyor belt.

In regard to claim 18, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claim 15. The Bjorner reference discloses wherein the frame grabber can capture images from one of the internal camera (see column 7, lines 20-27) or the external camera (see column 7, lines 3-10).

In regard to claim 19, Bjorner et al., in view of Satoh et al., US 2003/0193602, discloses the apparatus of claim 15. It is implied by the Bjorner reference that a user starts the operation of the system (see column 6, lines 19-22) and thereby selects the image buffer to capture images simultaneously from both the internal camera and the external camera.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs


TUAN HO
PRIMARY EXAMINER